



Rheumatoid arthritis

Overview

Rheumatoid arthritis is a chronic inflammatory disorder that can affect more than just your joints. In some people, the condition can damage a wide variety of body systems, including the skin, eyes, lungs, heart and blood vessels.

An autoimmune disorder, rheumatoid arthritis occurs when your immune system mistakenly attacks your own body's tissues.

Unlike the wear-and-tear damage of osteoarthritis, rheumatoid arthritis affects the lining of your joints, causing a painful swelling that can eventually result in bone erosion and joint deformity.

The inflammation associated with rheumatoid arthritis is what can damage other parts of the body as well. While new types of medications have improved treatment options dramatically, severe rheumatoid arthritis can still cause physical disabilities.

Symptoms

Signs and symptoms of rheumatoid arthritis may include:

- Tender, warm, swollen joints
- Joint stiffness that is usually worse in the mornings and after inactivity
- Fatigue, fever and loss of appetite

Early rheumatoid arthritis tends to affect your smaller joints first — particularly the joints that attach your fingers to your hands and your toes to your feet.

As the disease progresses, symptoms often spread to the wrists, knees, ankles, elbows, hips and shoulders. In most cases, symptoms occur in the same joints on both sides of your body.

About 40 percent of the people who have rheumatoid arthritis also experience signs and symptoms that don't involve the joints. Rheumatoid arthritis can affect many nonjoint structures, including:

- Skin
- Eyes
- Lungs
- Heart

- Kidneys
- Salivary glands
- Nerve tissue
- Bone marrow
- Blood vessels

Rheumatoid arthritis signs and symptoms may vary in severity and may even come and go. Periods of increased disease activity, called flares, alternate with periods of relative remission — when the swelling and pain fade or disappear. Over time, rheumatoid arthritis can cause joints to deform and shift out of place.

When to see a doctor

Make an appointment with your doctor if you have persistent discomfort and swelling in your joints.

Causes

Rheumatoid arthritis occurs when your immune system attacks the synovium — the lining of the membranes that surround your joints.

The resulting inflammation thickens the synovium, which can eventually destroy the cartilage and bone within the joint.

The tendons and ligaments that hold the joint together weaken and stretch. Gradually, the joint loses its shape and alignment.

Doctors don't know what starts this process, although a genetic component appears likely. While your genes don't actually cause rheumatoid arthritis, they can make you more susceptible to environmental factors — such as infection with certain viruses and bacteria — that may trigger the disease.

Risk factors

Factors that may increase your risk of rheumatoid arthritis include:

- **Your sex.** Women are more likely than men to develop rheumatoid arthritis.
- **Age.** Rheumatoid arthritis can occur at any age, but it most commonly begins in middle age.
- **Family history.** If a member of your family has rheumatoid arthritis, you may have an increased risk of the disease.
- **Smoking.** Cigarette smoking increases your risk of developing rheumatoid arthritis, particularly if you have a genetic predisposition for developing the disease. Smoking also appears to be associated with greater disease severity.
- **Environmental exposures.** Although poorly understood, some exposures such as asbestos or silica may increase the risk of developing rheumatoid arthritis. Emergency workers exposed to

dust from the collapse of the World Trade Center are at higher risk of autoimmune diseases such as rheumatoid arthritis.

- **Obesity.** People — especially women age 55 and younger — who are overweight or obese appear to be at a somewhat higher risk of developing rheumatoid arthritis.

Complications

Rheumatoid arthritis increases your risk of developing:

- **Osteoporosis.** Rheumatoid arthritis itself, along with some medications used for treating rheumatoid arthritis, can increase your risk of osteoporosis — a condition that weakens your bones and makes them more prone to fracture.
- **Rheumatoid nodules.** These firm bumps of tissue most commonly form around pressure points, such as the elbows. However, these nodules can form anywhere in the body, including the lungs.
- **Dry eyes and mouth.** People who have rheumatoid arthritis are much more likely to experience Sjogren's syndrome, a disorder that decreases the amount of moisture in your eyes and mouth.
- **Infections.** The disease itself and many of the medications used to combat rheumatoid arthritis can impair the immune system, leading to increased infections.
- **Abnormal body composition.** The proportion of fat to lean mass is often higher in people who have rheumatoid arthritis, even in people who have a normal body mass index (BMI).
- **Carpal tunnel syndrome.** If rheumatoid arthritis affects your wrists, the inflammation can compress the nerve that serves most of your hand and fingers.
- **Heart problems.** Rheumatoid arthritis can increase your risk of hardened and blocked arteries, as well as inflammation of the sac that encloses your heart.
- **Lung disease.** People with rheumatoid arthritis have an increased risk of inflammation and scarring of the lung tissues, which can lead to progressive shortness of breath.
- **Lymphoma.** Rheumatoid arthritis increases the risk of lymphoma, a group of blood cancers that develop in the lymph system.

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